

REMARKS/ARGUMENTS

Claims 1, 4-7 and New Claims 8-11 are now in the case. Claim 1 has been amended to recite that the textile article comprises a fluorocarbon (basis at page 9, l. 19). Claim 1 further recites that the article comprises polyethylene or polypropylene (basis at page 5, l. 24). As now claimed, deposition of the fluorocarbon is done under a modulated plasma gas discharge (basis at page 7, l. 4-15). New Claim 8 relates to the coating method *per se*, and includes silicon, polyethylene and polypropylene articles (basis at page 11, l. 13). Claim 9 requires the fluorocarbon to be in the form of a gas or vapor and Claim 10 recites tetrafluoroethylene as the fluorocarbon (basis at page 8, l. 16-18). Claim 11 recites that the discharge is in the RF range (basis at page 10, l. 11). It is submitted that all claims are fully supported, and entry is requested.

Formal Matters

For the record, there are no objections or rejections under 35 USC 112 outstanding.

Rejections Under 35 USC 102/103

Claims 1 and 4-7 stand rejected under §102 or §103 over U.S. 5,391,426, for reasons of record at pages 2-4 of the Office Action.

Moreover, original Claims 1-4 were earlier (O.A. 2/12/03) rejected over U.S. 4,632,842, entitled GLOW DISCHARGE PROCESS FOR PRODUCING IMPLANTABLE DEVICES. While the rejection over '842 has not been repeated in the most recent Office Action, it seems appropriate to consider its disclosures, in light of the amended claims now being considered.

Applicants respectfully traverse all rejections, to the extent they may apply to the claims, as now amended.

Data In Support Of Patentability

The present claims relate to the deposition of fluorocarbon coatings on polyethylene, polypropylene and silicon surfaces. The resulting hydrophobicity of the surfaces is reflected in the WCA (Water Contact Angle) of the coated surface. The greater the WCA, the more hydrophobic is the surface, and the better the coating.

Attention is directed to the comparative data presented in Table 1 at page 12 of the specification. As shown in the Table, silicon (Si), polyethylene (PE) and polypropylene (PP) substrates treated with fluorocarbon (C₂F₄) using continuous plasma gas (glow) discharge exhibit Water Contact Angles in the 100°-120° range. However, when the modulated discharge of the present invention was employed, the WCA values are increased to the 165° range.

While the data speak for themselves, it is submitted that nothing in '426 (nor in '842) teaches or suggests that a modulated discharge would provide a fluorocarbon coating superior to a continuous discharge on silicon, polyethylene or polypropylene surfaces.

U.S. 5,391,426

The '426 patent teaches various microporous materials, such as polyether polyesters, polyether polyurethanes, and polytetrafluoroethylene (preferred) – See Col. 2, l. 25-32. Coating is achieved by mechanical loading, followed by heat curing – See Col. 4, l. 8-22.

Simply stated, '426 does not teach or suggest means for coating silicon, polyethylene and polypropylene surfaces. Nothing therein teaches (§102) or suggests (§103) the use of plasma discharge to effect the fluorocarbon coating. Importantly, nothing therein teaches or suggests that use of a modulated, rather than continuous, discharge would improve such coatings on the claimed substrates.

In light of the foregoing, reconsideration and withdrawal of the rejections on this basis are requested

U.S. 4,632,842


As noted above, the '842 patent is not presently at issue. However, in order to speed prosecution, the following comments are proffered for consideration with regard to the claims now in the case.

Unlike '426, the '842 patent does relate to fluorocarbon deposition using a glow discharge (Col. 2, l. 55). However, in contrast with the present invention, nothing therein would appear to suggest deposition on silicon, polyethylene or polypropylene using an on/off modulated discharge in the manner of the present invention. In particular, nothing therein would appear to suggest the improvement in WCA achieved thereby.

In light of the above amendments and remarks, early and favorable action in the case is requested.

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